IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

Appl. No. : 10/525,092 Confirmation No. 3275

Applicant : Toshiaki KIMURA et al.

Filed : February 23, 2005

TC/A.U. : 1796

Examiner : Alicia Toscano

Dkt. No. : OGA-013

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I hereby certify that this paper is being facsimile transmitted on June 10, 2009, to the United States Patent and Trademark Office to facsimile number (571)273-8300.

Ronald J. Kubovcik

REPLY BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

June 10, 2009

Sir:

This is a Reply Brief to the Examiner's Answer dated April 10, 2009, in the appeal to the Board of Patent Appeals and Interferences in the patent application identified above.

ARGUMENTS

(1) **Nishimura Does Not Recognize That the Specific Fatty Acid Amides Contained in the Polylactic Acid Fiber of the Present Invention Provide Optimum Properties for the Polylactic Acid Fiber**

In the Examiner's Answer, the Examiner identifies Nishimura, JP 2001-131827, as disclosing the use of "bis-oleic amide and the like [0006], or an alkyl-substituted fatty acid monoamide" (Answer, page 3, lines 5-6 from the bottom of the page) as a lubricant for polylactic acid based flat yarns. The Examiner alleges that melt spinning and tape yarn formation are functionally equivalent uses for the polylactic acid composition.

Nishimura discloses numerous lubricants to be compounded with polylactic acid to improve the lubricity of flat yarn and to prevent its fibrillation. However, with respect to melt-spun fibers, among the lubricants enumerated in Nishimura, inorganic lubricants such as silica, talc, and calcium carbonate tend to easily embrittle polylactic acid and cause a defect to arise in the fibers. Metal soap lubricating agents such as aluminum stearate, calcium stearate, and magnesium stearate tend to reduce molecular orientation of polylactic acid and deteriorate resistance to friction of polylactic acid fibers. Further,

aliphatic hydrocarbon lubricating agents such as wax, paraffin, and fatty acid esters tend to cause the aliphatic hydrocarbon lubricating agents to gradually desorb through a melt-spinning step, stretching step and dyeing step such as scouring, whereby wearing durability cannot be obtained.

Nishimura equates the use of these lubricants with fatty acid amides.

However, applicants have found that among the numerous lubricants identified in Nishimura, a "fatty acid bisamide and/or alkyl-substituted fatty acid monoamide having a melting point of 100 °C or higher" (i.e., a "specific fatty acid amide") obtain(s) an effect that improves durability and color tone of a polylactic acid fiber containing the specific fatty acid amide and produced by a melt-spinning method.

There is no teaching in Nishimura that, among the numerous lubricants, the "specific fatty acid amides" recited in claim 1 on appeal should be selected as an optimum additive for polylactic acid for use in melt-spinning.

Thus, in addition to the reasons explained in the appeal brief for a lack of motivation or other reason to combine Nishimura, Tan, Kondo and Zeitler, a person of ordinary skill in

the art would not have been motivated to combine Nishimura, Tan, Kondo and Zeitler to produce a polylactic acid fiber by a melt-spinning method and to include the specific fatty acide amide in the polylactic acid with the expectation of good results.

(2) **Applicants Are Not Required to Show Unexpected Properties for the Use of the Specific Fatty Acid Amide of the Present Invention as Compared to Other Fatty Acid Amides in the Melt-spinning of Polylactic Acid**

In the Examiner's Answer, the Examiner takes the position that the declaration under 37 C.F.R. § 1.132 of Katsuhiko Mochizuki does not show unexpected properties because applicant exemplifies only two different amides and "one would expect different compounds to yield different results." (Answer, page 13, lines 10-11).

However, the declaration under 37 C.F.R. § 1.132 of Katsuhiko Mochizuki was not submitted to show unexpected properties for the use of the specific fatty acid amide in the melt-spinning of a polylactic acid. The declaration was submitted to rebut the Examiner's case of prima facie obviousness and, specifically, to show that melt spinning is not functionally equivalent to tape yarn production using a preferred composition of Nishimura. The data show that melt-spinning of the preferred

compositions of Nishimura produces fibers having inferior properties. A person of ordinary skill in the art would not have expected other lubricants disclosed in Nishimura to produce materially different results and would not have been motivated or to have any other reason to combine Nishimura with Tan, Kondo and Zeitler as proposed by the Examiner.

Applicants are not required to show that fatty acid amides other than those recited in the claims on appeal will not produce good results in the melt-spinning of polylactic acid. The art does not disclose melt-spinning of polylactic acid containing fatty acid amides. Applicants are not required to compare their fibers with fibers, i.e., polylactic acid fibers containing fatty acid amides and produced by a melt-spinning method, that do not exist in the prior art.

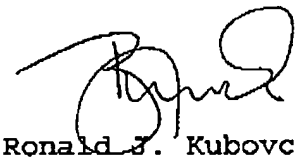
Moreover, the data of the examples and comparative examples in the specification of the present application do, in fact, show that the specific fatty acid amide of the polylactic acid fiber of the present invention produces a polylactic acid fiber having unexpected properties as compared to the use of other fatty acid amides (see, for example, the data in Tables 1, 4 and 7 for N-stearyl stearic acid amide ("SS") used in Examples 8, 19 and 24)

and other lubricants and for amounts of the specific fatty acid amide outside the scope of the claims on appeal.

Reversal of the rejections made by the Primary Examiner in the Final Action is in order and is respectfully solicited.

Respectfully submitted,

KUBOVCIK & KUBOVCIK



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